STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
State Revolving Fund Loan Program
L & C Tower, 8th Floor
401 Church Street
Nashville, TN 37243

FINDING OF NO SIGNIFICANT IMPACT
Approval of Facilities Plan
Lebanon (Wilson County), Tennessee
Project No. DWSRF 2008-080

November 24, 2008

The National Environmental Policy Act requires federally designated agencies to determine whether a proposed major agency action will significantly affect the environment. One such major action, defined by the Safe Drinking Water Act (SDWA), is the approval of a facilities plan prepared pursuant to EPA 816-R-97-005, Final Guidelines. In making this determination, the State Revolving Fund Loan Program assumes that all facilities and actions recommended by the plan will be implemented. The State's analysis concludes that implementing the plan will not significantly affect the environment; accordingly, the State Revolving Fund Loan Program is issuing this Finding of No Significant Impact (FNSI) for public review.

The City of Lebanon has completed the facilities plan entitled "South Hartmann Drive Booster Station & Water Transmission Main PH 2" dated June 2008. The facilities plan provides recommendations for improvements to the existing water treatment system serving Lebanon (Wilson County), Tennessee. This project will consist of the installation of approximately 3,000 linear feet of 12-inch and 16-inch diameter ductile iron pipe water lines and a new water booster station with three 700 gallons per minute pumps along South Hartmann Drive to provide redundancy and an adequate supply of water to meet existing peak demands while maintaining a reserve capacity for customers in the area south of Interstate 40. The total estimated project cost is $1,034,800. A Drinking Water State Revolving Fund (DWSRF) loan in the amount of $900,000 has been requested for this project. The remainder of the project cost will be funded by local funds from the City of Lebanon.

Attached is an Environmental Assessment containing detailed information supporting this action. Comments supporting or disagreeing with this proposed action received within 30 days of the date of this FNSI will be evaluated before we make a final decision to proceed. If you wish to comment or to challenge this FNSI, send your written comment(s) to:

Mr. Sam R. Gaddipati, Environmental Manager
State Revolving Fund Loan Program
Tennessee Department of Environment and Conservation
L & C Tower, 8th Floor
401 Church Street
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or contact him by telephone at (615) 532-0445 or by e-mail at sam.gaddipati@state.tn.us.

ENVIRONMENTAL ASSESSMENT
Lebanon (Wilson County), Tennessee
Project No. DWSRF 2008-080

November 24, 2008

A. PROPOSED FACILITIES AND ACTIONS; FUNDING STATUS

This project will consist of the installation of approximately 3,000 linear feet (LF) of 12-inch and 16-inch diameter ductile iron pipe (DIP) water lines and a new water booster station with three 700 gallons per minute (gpm) pumps along South Hartman Drive to provide redundancy and an adequate supply of water to meet existing peak demands while maintaining a reserve capacity for customers in the area south of Interstate 40. The facilities planning area and project location are indicated on Figure No. 1 of this Environmental Assessment.

FUNDING STATUS

The facilities described above comprise the scope of the Drinking Water State Revolving Fund Loan No. 2008-080 scheduled for funding in fiscal year FY 2009. The estimated project costs are summarized in the following tabulation:

PROJECT CLASSIFICATIONS	COSTS ($)
Administrative & Legal	5,000
Design Fees	43,400
Engineering Basic Fees	18,600
Resident Inspection	72,800
Construction	850,250
Contingencies	44,750
TOTAL	**1,034,800**
DWSRF Loan	900,000
Local Funds	134,800

B. EXISTING ENVIRONMENT

The City of Lebanon's Planning Area is located in Wilson County in middle Tennessee. A discussion of existing environmental features in the area include the following:

SURFACE WATERS

Surface waters within the City of Lebanon's Planning Area include the Cumberland River (Old Hickory Reservoir) and its tributaries including Barton's Creek and Sinking Creek. Designated uses for the Cumberland River include domestic water supply, industrial water supply, fish and aquatic life, recreation, irrigation, livestock watering and wildlife, and navigation. The Lebanon Water Treatment Plant supplies drinking water for the City of Lebanon, the Water and Wastewater Authority of Wilson County, and the Laguardo Utility District. The raw water is obtained from a surface water intake on the Cumberland River upstream of the existing Lebanon Wastewater Treatment Plant (WWTP)'s effluent discharge point.

GROUNDWATER

The bedrock underlying the Lebanon Planning Area is comprised of the Mississippian-age Fort Payne Formation and the Chattanooga Shale. Outcrops of limestone bedrock are common throughout most of the planning area. Sinkholes and depressions are numerous. There are no known sources of groundwater intakes for drinking water located within the proposed project area.

SOILS

Primarily, the Talbott-Gladeville-Barfield-Rock Outcrop Association occurs in the Lebanon Planning Area. Soils in the Association consist of well-drained to somewhat excessively-drained clayey and loamy soils formed in old alluvium from limestone, sandstone and shale. These soils typically have a grayish brown loam surface layer ranging from 5 inches to 60 inches in depth.

TOPOGRAPHY

The City of Lebanon's Planning Area is located in the Central Basin Physiographic province and consists of gently rolling and undulating terrain crossed by numerous streams. The topography in the Lebanon Planning Area ranges from 500 feet to 750 feet above mean sea level.

OTHER ENVIRONMENTAL FEATURES

Several natural areas are recognized in Wilson County for their environmental features including the Vesta Cedar Glade, Gattinger's Cedar Glade and Barrens, Couchville Cedar Glade and the Vine Cedar Glade. Additionally, two Tennessee State Parks, Cedars of Lebanon and Long Hunter, also contain State Natural Areas. These environmentally sensitive areas will not be affected by the proposed project. No wild or scenic rivers or unique scientific areas exist in the planning area.

C. EXISTING WATER FACILITIES

The City of Lebanon currently owns and operates the only water treatment plant (WTP) in the planning area and provides service to approximately 41,000 customers. The Lebanon WTP, originally constructed in the late 1920's, has a current capacity of 12 million gallons a day (MGD). The principal components of the existing facility include the intake and raw water main, high service pumps, activated carbon feed facilities, sedimentation basins, flocculators and rapid mixers, filtration, chlorination, chemical feed equipment, laboratory, and sludge handling facilities. Lebanon's raw water supply is obtained from an intake on the Cumberland River.

Lebanon's distribution system is comprised of approximately 170 miles of 3/4-inch through 30-inch diameter waterlines with pipe materials consisting of cast iron pipe, DIP, galvanized pipe, copper, polyvinyl chloride pipe, and pre-stressed concrete. Additionally, the City of Lebanon has four water booster pump stations and six water storage tanks with a total storage capacity of 10 million gallons (MG).

Existing and projected facility conditions are shown in the following chart:

EXISTING AND PROJECTED WTP CONDITIONS

POPULATION	EXISTING (2008)	PROJECTED (2028)
City of Lebanon	23,800	41,890
Percent Served	86%	90%
Service Area Excluding Lebanon	7,930	11,500
Percent Served	90%	95%
Total Planning Area	31,730	53,390
Percent Served	87%	91%

WATER NEEDS (MGD)	EXISTING (2008)	PROJECTED (2028)
Residential	2.70	4.81
Commercial/Industrial	3.14	5.57
Loss	1.46	2.59
TOTAL	7.30	12.97

D. NEED FOR PROPOSED FACILITIES AND ACTIONS

The City of Lebanon's Industrial Park pressure zone is currently served by the Williams Street Booster Station and provides water for industrial and commercial customers. This booster station is adequate to meet the existing 2,215 gpm peak demand of the Industrial Park Pressure Zone only when all three pumps at the booster station are operating. Currently equipment breakdowns or power loss at the booster station results in the loss of service for customers in the area south of Interstate 40. Therefore, the City decided to prevent a loss of service by providing redundancy in that portion of the water system with an additional source of water available to the Industrial Park pressure zone from a new booster station on South Hartmann Drive.

E. ALTERNATIVES ANALYSIS

Several alternatives were evaluated in the June 2008 Facilities Plan. Discussions of the evaluation of these alternatives and the recommended plan are following:

NO-ACTION

The "no-action" approach is not a viable alternative because the current facilities delivering water to the industrial park pressure zone only meets the existing 2,215 gpm peak demand when all three pumps at the booster station are operating. Without the ability to provide additional water beyond the capacity of the Williams Street Booster Station and to provide redundancy in case of equipment failure or power outages, water pressure and storage problems will ensue. The City of Lebanon must take action to provide a continuous, safe, reliable, and adequate supply of

drinking water to citizens within the area south of Interstate 40. Therefore, this alternative was rejected.

Construction of a Water Booster Station and Water Storage Tank South of Interstate 40

This alternative consists of the installation of approximately 17,000 LF of 16-inch diameter DIP water line along Old Shannon Road and West Old Murfreesboro Road and the construction of a new water booster station with a 1,000 gpm pump and a 1.0 MG elevated water storage tank located south of Interstate 40. This alternative is not the most cost effective and is rejected.

Upgrade the Williams Street Booster Station

This alternative consists of upgrades to the existing Williams Street Booster Station to include replacing the three existing pumps and the installation of approximately 16,000 LF of 16-inch DIP water lines to meet the 2,215 gpm peak demand of the Industrial Park pressure zone. This alternative is not the most cost-effective and is rejected.

Construction of a New Water Booster Station on South Hartmann Drive

This alternative consists of the installation of approximately 3,000 LF of 12-inch and 16-inch diameter DIP water lines and the construction of a new water booster station along South Hartmann Drive with three 700 gpm pumps to provide redundancy and an adequate supply of water to meet existing peak demands while maintaining a reserve production capacity for customers in the area south of Interstate 40. This alternative is the most cost-effective and is selected.

F. ENVIRONMENTAL CONSEQUENCES; MITIGATIVE MEASURES

The environmental benefits of this project will be to provide a continuous, safe, reliable, and adequate supply of water to serve the community.

During the construction phase, short-term environmental impacts due to noise, dust, mud, disruption of traffic, runoff of silt with rainfall, etc., are unavoidable. Minimization of these impacts will be required; however, many of these minimization measures will only be temporary. Using the following measures to prevent erosion will minimize impacts on the environment:

1. Specifications will include temporary and permanent measures to be used for controlling erosion and sediment.
2. Soil or landscaping maintenance procedures will be included in the specifications.
3. The contractor will develop an Erosion Control Plan. It should contain a construction schedule for each temporary and permanent measure controlling erosion and sediment. It should include the location, type, and purpose for each measure and the times when temporary measures will be removed or replaced.

These measures, along with requiring the contractor to return the construction site to as-good-as or better-than its original condition, will prevent any adverse impacts due to erosion.

G. PUBLIC PARTICIPATION; SOURCES CONSULTED

A Public Meeting was held on May 29, 2008, at 6:00 p.m., local time. The selected plan for water distribution and user charges were described to the public, and their input was received. This agency is not aware of any unresolved public objections that may have been voiced before or after the public meeting regarding this project.

Sources consulted about this project for information or concurrence were:

1. Tennessee Department of Agriculture
2. Tennessee Department of Economic and Community Development (ECD)
3. Tennessee Department of Environment and Conservation (TDEC), Division of Air Pollution Control (DAPC)
4. Tennessee Department of Transportation (TDOT)
5. TDEC, Division of Groundwater Protection (DGWP)
6. Tennessee Historical Commission
7. TDEC, Division of Archaeology (DA)
8. TDEC, Division of Natural Areas (DNA)
9. TDEC, Division of Solid Waste Management (DSWM)
10. TDEC, Division of Water Pollution Control (DWPC)
11. TDEC, Division of Water Supply (DWS)
12. Tennessee Wildlife Resources Agency (TWRA)
13. United States Army Corps of Engineers (USACE)
14. United States Fish and Wildlife Service (USF&W)
15. City of Lebanon
16. Wilson County
17. Water Management Services, Nashville, TN